Emergency, Telephone Maintenance, and Power Radio Services may be authorized on a primary basis if such stations are the first to be authorized in their area of operation on the frequency or group of frequencies. Remote or satellite stations of wide area systems in all other services will be authorized only on a secondary, non-interference basis to cochannel licensees. To determine system loading, the total number of mobile units and control stations operating in the wide-area system shall be counted with respect to the total number of base station frequencies assigned to the system.

(h) Regional, statewide, or ribbon configuration systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. In a ribbon, regional or statewide system, a mobile station will be counted for channel loading purposes only for the base station facility in the geographic area in which it primarily operates. If this cannot be determined, it will be counted fractionally over the number of base station facilities with which it communicates regularly.

(i) For SMRS category trunked systems licensed in the 896–901/935–940 MHz band (other than MTA-licensed systems), if at the end of the initial five-year license term the licensee of such a trunked system has not satisfied the loading requirements of paragraph (b) of this section, the licensee requesting renewal of its license will be granted a renewal for only a two-year period. Regardless of the date of grant of the two-year renewal, the licensee will be required to comply fully with the minimum requirements set forth in paragraph (b) of this section at the end of the two-year renewal term. As an exception to this requirement, if the licensee obtains the MTA license covering its assigned spectrum in accordance with §§ 90.661 through 90.671, these loading requirements will no longer be applicable and the coverage requirements of § 90.665 will govern.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 49 FR 36377, Sept. 17, 1984; 53 FR 12157, Apr. 13, 1988; 57 FR 37731, Aug. 20, 1992; 58 FR 12177, Mar. 3, 1993; 59 FR 59966, Nov. 21, 1994; 60 FR 21991, May 4, 1995; 60 FR 48918, Sept. 21, 1995; 61 FR 6157, Feb. 16, 1996; 61 FR 6577, Feb. 21, 1996; 62 FR 18935, Apr. 17, 1997; 63 FR 68969, Dec. 14, 1998; 69 FR 67849, Nov. 22, 2004]

### § 90.633 Conventional systems loading requirements.

(a) Non-SMR conventional systems of communication will be authorized on the basis of a minimum loading criteria of seventy (70) mobile stations for each channel authorized.

(b) A channel will not be assigned to additional licensees when it is loaded to 70 mobile stations. Where a licensee does not load a channel to 70 mobiles the channel will be available for assignment to other licensees. All authorizations for conventional systems are issued subject to this potential channel sharing condition.

(c) Except as provided in § 90.629 of this part, licensees of conventional systems must place their authorized stations in operation not later than one year after the date of grant of the system license.

(d) If a station is not placed in operation within one year, except as provided in Section 90.629 of this part, the license cancels automatically. For purposes of this section, a base station is not considered to be in operation unless at least one associated mobile station is also in operation.

(e) A non-SMR licensee may apply for additional frequency pairs if its authorized conventional channel(s) is loaded to seventy (70) mobiles. Applications may be considered for additional channels in areas where spectrum is still available and not applied for, even if the already authorized channel(s) is not loaded to 70 mobile units, upon an appropriate demonstration of need.

(f) Wide area systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. For loading purposes, if the total number of mobile stations justifies the total number of authorized based frequencies in a

given area, the system will be construed to be loaded.

(g) Regional, statewide, or ribbon configuration systems may be authorized to persons eligible for licensing under subparts B or C of this part upon an appropriate showing of need. In a ribbon, regional or statewide system, a mobile station will be counted for channel loading purposes only for the base station facility in the geographic area in which it primarily operates. If this cannot be determined, it will be counted fractionally over the number of base station facilities with which it communicates regularly.

[47 FR 41032, Sept. 16, 1982, as amended at 48 FR 51929, Nov. 15, 1983; 56 FR 65860, Dec. 19, 1991; 59 FR 59966, Nov. 21, 1994; 62 FR 18935, Apr. 17, 1997; 64 FR 10397, Mar. 4, 1999]

## TECHNICAL REGULATIONS REGARDING THE USE OF FREQUENCIES IN THE 806–824 MHZ, 851–869 MHZ, 896–901 MHZ, AND 935–940 MHZ BANDS

### § 90.635 Limitations on power and antenna height.

(a) Systems to be located within 24 km. (15 mi.) of the geographic center of the 50 urbanized areas detailed in table 1 will be considered ''urban'' systems. All others will be considered ''suburban'' systems.

(b) The effective radiated power and antenna height, for base stations used in suburban-conventional systems of communications, shall be no greater than 500 watts (27 dBw) and 152 m. (500 ft.) above average terrain (AAT), respectively, or the equivalent as determined from table 2. These are maximum values, and applicants are required to justify power levels and antenna heights requested. For service area requirements less than 32 km. (20 mi.) in radius, see table 3.

(c) The effective radiated power and antenna height for base stations used in trunked and urban-conventional systems may not exceed 1 kilowatt (30 dBw) and 304 m. (1,000 ft.) above average terrain (AAT), respectively, or the equivalent thereof as determined from table 2. These are maximum values, and applicants will be required to justify power levels and antenna heights requested. For service area requirements less than 32 km (20 mi.) in radius, see table 4.

(d) The maximum output power of the transmitter for mobile stations is 100 watts (20 dBw).

TABLE 1—URBANIZED AREAS

[NOTE: Coordinates are referenced to North American Datum 1983 (NAD83)]

| Urban area | Geographic center | |
|---|---|---|
| | North latitude | West longitude |
| Akron, Ohio | 41°05′00.2″ | 81°30′43.4″ |
| Albany-Schenectady-Troy, New York | 42°39′01.3″ | 73°44′59.4″ |
| Atlanta, Georgia | 33°45′10.4″ | 84°23′36.7″ |
| Baltimore, Maryland | 39°17′26.4″ | 76°36′43.9″ |
| Birmingham, Alabama | 33°31′01.4″ | 86°48′36.0″ |
| Boston, Massachusetts | 42°21′24.4″ | 71°03′23.2″ |
| Buffalo, New York | 42°52′52.2″ | 78°52′20.1″ |
| Chicago, Illinois | 41°52′28.1″ | 87°38′22.2″ |
| Cincinnati, Ohio | 39°06′07.2″ | 84°30′34.8″ |
| Cleveland, Ohio | 41°29′51.2″ | 81°41′49.5″ |
| Columbus, Ohio | 39°57′47.2″ | 83°00′16.7″ |
| Dallas, Texas | 32°47′09.5″ | 96°47′38.0″ |
| Dayton, Ohio | 39°45′32.2″ | 84°11′42.8″ |
| Denver, Colorado | 39°44′58.0″ | 104°59′23.9″ |
| Detroit, Michigan | 42°19′48.1″ | 83°02′56.7″ |
| Fort Lauderdale-Hollywood, Florida | 26°07′31.3″ | 80°08′59.2″ |
| Fort Worth, Texas | 32°44′55.5″ | 97°19′45.1″ |
| Houston, Texas | 29°45′26.8″ | 95°21′37.8″ |
| Indianapolis, Indiana | 39°46′07.2″ | 86°09′46.0″ |
| Jacksonville, Florida | 30°19′44.9″ | 81°39′41.3″ |
| Kansas City, Missouri/Kansas | 39°04′56.0″ | 94°35′20.8″ |
| Los Angeles-Long Beach, California | 34°03′15.0″ | 118°14′31.3″ |
| Louisville, Kentucky/Indiana | 38°14′47.3″ | 85°45′48.9″ |
| Memphis, Tennessee/Mississippi | 35°08′46.3″ | 90°03′13.3″ |
| Miami, Florida | 25°46′38.4″ | 80°11′31.2″ |
| Milwaukee, Wisconsin | 43°02′19.0″ | 87°54′15.3″ |
| Minneapolis-St. Paul, Minnesota | 44°58′56.9″ | 93°15′43.8″ |
| New York, New York-Northeastern New Jersey | 40°45′06.4″ | 73°59′37.5″ |